Name: _____ Date: _____

1. Simplify:
$$\frac{1}{3} - \frac{4}{13}$$

2. Simplify:
$$\frac{1}{3} \cdot \left(-\frac{2}{3}\right)$$

3. Find a solution of $4x = 28$.

4. Find a solution of $y + 9 = 22$.

5. Find a solution of $9b - 8 = -62$

6. Find a solution of $2x + 24 = 6x$

7. Find a solution of $2a + 12 = 6 - a$

8. Find a solution of $14x - 5 = 5x + 2$

9. Solve and check:
$$6v - 9(v - 5) = 21$$

10. Solve and check:
$$10(y - 4) + 6y = -168$$

11. Solve and check:
$$3v - 6 = 16 + 7(v - 6)$$

12. Solve and check:
$$3.7(v + 4) = 83 + 9.2v$$

13. Solve and check:
$$16 - (5 - 44a) = 22a + 21$$

14. Solve and check:
$$3[2 - 9(b - 15)] = 15(3b + 2) + 429$$

15. Solve the formula for the given variable.
$$d = rt; \ r \qquad \text{(Physics)}$$

16. Solve the formula for the given variable.
$$E = IR; \ R \qquad \text{(Physics)}$$

17. Solve the formula for the given variable.
$$PV = nRT; \ R \qquad \text{(Chemistry)}$$

18. Solve the formula for the given variable.
$$P = 2L + 2W; \ L \qquad \text{(Geometry)}$$

19. Solve the formula for the given variable.
$$V = \frac{1}{3}Ah; \ h \qquad \text{(Geometry)}$$

20. Solve the formula for the given variable.
$$P = R - C; \ R \qquad \text{(Business)}$$

21. Solve the formula for the given variable.
$$P = \frac{R - C}{n}; \ C \qquad \text{(Business)}$$

22. Solve the formula for the given variable.
$$A = P + Prt; \ P \qquad \text{(Business)}$$

Answer Key

1. $\dfrac{1}{39}$
2. $-\dfrac{2}{9}$
3. 7
4. 13
5. –6
6. 6
7. –2
8. $\dfrac{7}{9}$
9. 8
10. –8
11. 5
12. –12.4
13. $\dfrac{5}{11}$
14. $-\dfrac{2}{3}$
15. $r = \dfrac{d}{t}$
16. $R = \dfrac{E}{I}$
17. $R = \dfrac{PV}{nT}$
18. $L = \dfrac{P - 2W}{2}$
19. $h = \dfrac{3V}{A}$
20. $R = P + C$
21. $C = -Pn + R$
22. $P = \dfrac{A}{1 + rt}$